

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CA2004/001968

## A. CLASSIFICATION OF SUBJECT MATTER

According to International Patent Classification (IPC<sup>7</sup>): A61K 35/74; A61K 38/00; A61K 35/00

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC<sup>7</sup>: A61K 35/74; A61K 38/00; A61K 35/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)

Delphion; Medline

Search terms: Lactic acid bacteria, probiotic; lactobacillus, angiogenesis, cancer, arthritis, psoriasis.

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No(s).
P, Y	BAHARAV, E. et al. Lactobacillus GG bacteria ameliorate arthritis in Lewis rats. J NUTR. August 2004, Vol.134, No.8, pages 1964-1969, see whole document.	1, 14-17, 19-21, 23
P, Y	WO 2004/069178 A2 (VERSALOVIC, J. et al.) 19 August 2004 pages 4-7, 31-41	5-13, 19-31
X Y	WO 03/045405 A2 (LUQUET, F-M. et al.) 5 June 2003, see whole document	1-8, 14-26, 31 27-30
X Y	ARIMOCHI, H. et al. Effect of Intestinal Bacteria on Formation of Azoxymethane-Induced Aberrant Crypt Foci in the Rat Colon. BIOCHEM BIOPHYS RES COMMUN. 1997, Vol.238, No.3, pages 753-757, see whole document.	1, 5-10, 12-15, 17-19, 21-24, 26 11, 16, 20

[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

\* Special categories of cited documents:  
 "A" document defining the general state of the art which is not considered to be of particular relevance  
 "B" earlier application or patent but published on or after the international filing date  
 "L" document which may throw doubt on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  
 "O" document referring to an oral disclosure, use, exhibition or other means  
 "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  
 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  
 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art  
 "&" document member of the same patent family

Date of the actual completion of the international search  
04 February 2005 (04-02-2005)

Date of mailing of the international search report  
14 March 2005 (14-03-2005)

Name and mailing address of the ISA/CA  
Canadian Intellectual Property Office  
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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No(s).
X Y	KATO, I. et al. Suppressive effects of the oral administration of <i>Lactobacillus casei</i> on type II collagen-induced arthritis in DBA/1 mice. LIFE SCI. 1998, Vol.63, No.8, pages 635-644, see whole document.	1, 14, 15, 17, 19, 21, 23 16, 20
Y	MITAL, B.K. et al. Anticarcinogenic, Hypocholesterolemic, and Antagonistic Activities of <i>Lactobacillus acidophilus</i> . CRIT REV MICROBIOL. 1995, Vol. 21, No.3, pages 175-214, see whole document.	1-23
Y	MATSUZAKI, T. Immunomodulation by treatment with <i>Lactobacillus casei</i> strain Shirota. INT J FOOD MICROBIOL. 1998, Vol.41, No.2, pages 133-140, see whole document.	1-23
Y	GRIFFIOEN, A.W. et al. Angiogenesis: Potentials for Pharmacologic Intervention in the Treatment of Cancer, Cardiovascular Diseases, and Chronic Inflammation. PHARMACOL REV. 2000, Vol.52, No.2, pages 237-268, see whole document.	1-23
A	HIRAYAMA, K. et al. The role of probiotic bacteria in cancer prevention. MICROBES AND INFECTION. 2000, Vol.2, No.6, pages 681-686, see whole document.	1-31

**Box No. II      Observations where certain claims were found unsearchable (Continuation of item 2 of the first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons :

7. ☒ Claim Nos. : 19 to 23  
because they relate to subject matter not required to be searched by this Authority, namely :  
Although claims 19 to 23 are directed to methods of treatment of the human /animal body which this Authority is not obliged to search under Rule 39.1 (iv) of the PCT, the search has been carried out based on the alleged effects of the compositions or supernatants referred to therein.
8. ☐ Claim Nos. :  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically :
9. ☐ Claims Nos. :  
because they are dependant claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III      Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows :

10. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
11. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
12. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claim Nos. :
13. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim Nos. :

**Remark on Protest**

☐  
☐

The additional search fees were accompanied by the applicant's protest.  
No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

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WO 2004/069178 A2	19-08-2004	US20040208863 A1	21-10-2004
WO 03/045405 A2	05-06-2003	EP1450832 A2	01-09-2004
		CA2467449 AA	05-06-2003
		CA2364249 AA	27-05-2003
		AU2349226 AA	10-06-2003